

WHAT IS CLAIMED IS:

1/ A vehicle seat having first and second sides, said seat comprising a seat proper and a seat back mounted to pivot relative to the seat proper by means of a hinge mechanism comprising first and second hinges which are respectively disposed on the first and second sides of the seat, and each which comprises:

first and second cheek plates mounted to pivot relative to each other about an pivot axis that is common to the first and second hinges, both of the first cheek plates of the first and second hinges being secured to a first seat element selected from the seat proper and the seat back, while the second cheek plates of the first and second cheek plates are secured to a second seat element chosen from the seat proper and the seat back, the second cheek plate of each hinge being provided with a first set of teeth forming at least one circular arc centered on the pivot axis;

a plurality of locking members, each of which is provided with a second set of teeth having an angular pitch that is identical to the angular pitch of the first set of teeth, each locking member being mounted to move on the first cheek plate in a substantially radial direction between firstly an active position in which the second set of teeth of each locking member is in engagement with the first set of teeth of the second cheek plate so as to prevent the first and second cheek plates from moving relative to each other, and secondly a retracted position in which the second set of teeth of each locking member does not co-operate with the first set of teeth of the second cheek plate so as to enable the first and second cheek plates to pivot relative to each other; and

a control device suitable for placing the plurality of locking members either in the active position or in the retracted position, the seat further comprising a

mechanical coupling which interconnects the control devices of the first and second hinges;

wherein each locking member of the first hinge is mounted to move radially only on the first cheek plate of said first hinge, and wherein each locking member of the second hinge is further mounted on the first cheek plate of said second hinge with a certain amount of play in a direction that is circumferential to the radial direction so as to make it possible, when each locking member of the second hinge is in its active position, for each second set of teeth to mesh fully with the first set of teeth of the second hinge.

2/ A seat according to claim 1, in which the circumferential play of the second set of teeth of each locking member of the second hinge is equal to not less than twice the distance between two adjacent teeth of the first set of teeth of said second hinge.

20 3/ A seat according to claim 1, in which, when each locking member is in the retracted position, the first cheek plate and each locking member of the second hinge are adapted to enable each second set of teeth of said locking members to be placed in an identical position
25 relative to said first cheek plate of the second hinge.

4/ A seat according to claim 1, in which each locking member of the second hinge is mounted to slide in the radial direction between two guides that are normally separated from the locking member by said circumferential play.

30 5/ A seat according to claim 4, in which the two guides have respective bearing zones, at least one of which
35 serves to make substantially point contact with the locking member when it is in the active position.

- 6/ A seat according to claim 4, in which the two guides of each locking member are adapted to co-operate with respective ones of two bearing edges belonging to the locking member by applying said locking member against
5 the first set of teeth of the second hinge by a wedging effect when the hinge mechanism is subjected to torque greater than a normal value.
- 7/ A seat according to claim 6, in which the two bearing edges of each locking member form respective wedges with the second set of teeth of said locking members, which wedges project laterally on either side of said locking member.
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- 8/ A seat according to claim 1, in which each locking member comprises firstly a slug carrier mounted to slide radially only between two guides, the slug carrier serving to co-operate with the control device of the second hinge, and secondly a slug provided with the
15 second set of teeth serving to co-operate with the first set of teeth of the second hinge, said slug being mounted on the slug carrier with play equal to not less than said circumferential play.
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- 9/ A seat according to claim 8, in which the slug includes a projecting portion which diverges radially inwards and which is held captive with play in a notch in the slug carrier, the projecting portion of said slug being urged against the notch in the slug carrier by a
25 spring disposed between the slug and said slug carrier, and, when the locking member is in the active position,
30 the slug carrier has a bearing surface which pushes the slug back against the second cheek plate so as to cause the second set of teeth of the slug to co-operate with
35 the first set of teeth of said second cheek plate.
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10/ A seat according to claim 1, in which the control device of the second hinge comprises:

5 a rotary cam which is urged resiliently towards a rest position in which said cam places each locking member in the active position; and

10 a control plate which is secured to the cam and which covers each locking member at least in part, said control plate being provided with cutouts adapted to co-operate with projecting pegs provided on each locking member so as to move each locking member simultaneously towards the retracted position when the cam is moved into an actuating position.

15 11/ A seat according to claim 1, in which the control device of the second hinge comprises:

20 a plurality of springs which connect respective ones of the plurality of locking members to the first cheek plate of the second hinge, each spring urging the locking member that is associated with it towards the active position; and

25 a rotary control plate which is urged resiliently towards a rest position and which covers each locking member at least in part, said control plate being provided with cutouts adapted to co-operate with projecting pegs provided on each locking member so as to move each locking member simultaneously towards the retracted position when said control plate is moved to an actuating position.

30 12/ A seat according to claim 11, in which each cutout in the control plate has a ramp-shaped cam edge which is adapted to hold the corresponding locking member in the active position when the control plate is in the rest position.

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13/ A seat according to claim 1, in which the mechanical coupling is a lost-motion mechanical coupling which

interconnects the control devices of the first and second hinges with a certain amount of angular play, the mechanical coupling being adapted to enable the control device of the second hinge to place the locking members
5 in the active position when the control device of the first hinge is driven to move the locking members of said first hinge from the retracted position to the active position, said mechanical coupling further being adapted to enable the control devices of the first and second
10 hinges to place the locking members of said first and second hinges simultaneously in the retracted position.